# SPECIAL BULLETIN

### O F F I C E   O F   T R A I N I N G

25X1A

7 February 1969

To:   All Training Officers of the Agency

## MATHEMATICS FOR ADP SYSTEMS ANALYSTS

COURSE
DESCRIPTION

Mathematics is playing an expanding role in the management decision making process; however, the ADP systems analyst does not necessarily require the manipulative skills of a mathematician. He does need to increase his knowledge and understanding of the uses of mathematics.

In an effort to serve this need, the Office of Computer Services is offering,

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Company, the Mathematics for Systems Analysts series. This is divided into four (4) one-week courses which run from 0900 - 1630 Monday through Friday.

1.   Basic Mathematics - 3 - 7 March
2.   Advanced Methods and Models - 7 - 17 April
3.   Statistical Inference - early fall - date to be announced.
4.   Probabilistic Models - early fall - date to be announced.

The first two courses deal primarily with the kind of mathematics used to analyze or describe situations which are determinate, i.e., where questions of risk or uncertainty are not raised. In many real problems, such analysis leads to good results - in fact the determinate view was essentially the only one pursued in science until recent times. Even today this view is characteristic of many disciplines. Other problems must be viewed as comprised, at least in part, (continued)

of random effects which introduce uncertainty into some or all measurements.
The last two courses are devoted to methods pertinent to this so-called stochastic view. The first and third courses are similar in that they emphasize mathematical concepts associated with discovering inner relationships, i.e., those relationships in a problem situation that are not superficially revealed; these two sections are devoted primarily to the mathematics of analysis. The second and fourth courses, in contrast, are devoted more to the use of mathematics to show how combinations of detailed effects act to produce overall system characteristics. The emphasis is on building mathematical models which synthesize behavior.

**PREREQUISITES** While this series is intended for systems analysts who have had programming experience, it is not intended for those individuals with extensive mathematical backgrounds. Two or more years of Agency experience is also required. All requests must be signed by the Component Information Processing Co-ordinator.

**ENROLLMENT** It is recommended that for this first running, the whole series be taken in sequence. Enrollment deadline for the complete series will be 24 February 1969. Submit requests on Form 136 to ███████ Room 1 D 1617 Headquarters. Enrollment is limited to 15.

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**LOCATION** ████████████████████████

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**COST** The cost of $250.00 per week per student, which includes books and all course material, is to be prorated among the 25X1A participating offices.

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**FOR FURTHER DETAILS** Please call ███████, extension ██████